

**REMARKS**

Claims 17-23, 25, 46-49 and 51-59 are pending in the present application.

Claims 17-23, 25, 58 and 59 are withdrawn from consideration.

Claims 46-49 and 51-57 are rejected.

Claim 46 was amended herein.

Reconsideration of the claims is respectfully requested.

**35 U.S.C. § 103 (Obviousness)**

Claims 46, 48-49, 51-52 and 54 were rejected under 35 U.S.C. § 103(a) as being unpatentable over “Fabrication Technique for Fully Recessed Oxide Isolation,” IBM Technical Disclosure Bulletin, vol. 19, no. 10, pages 3947-50 (March 1, 1997) (“the IBM TDB”). Claims 46-49, 52-53 and 55-57 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,192,059 to *Kahn et al* in view of the IBM TDB. These rejections are respectfully traversed.

The Office Action states:

[T]he IBM TDB does not disclose the thickness of an oxidation layer (recessed oxide) being from about 25 Angstroms to about 500 Angstroms on the substrate.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to optimize and select an appropriate thickness for the oxidation layer.

However, a statement that modifications of the prior art to meet the claimed invention would have been “well within the ordinary skill in the art” at the time the claimed invention was made is not sufficient to establish a *prima facie* case of obviousness without some objective reason to modify the teachings of the prior art. MPEP § 2143.01(IV), page 2100-140 (8<sup>th</sup> ed. rev. 6, September 2007).

Claims 46 recites reoxidation of the polysilicon layer within the gate structure to increase an

electric field during operation at the peripheral edge of the polysilicon layer, where the thickness of an oxidation layer produced by said reoxidation is from about 25 Å to about 500 Å. In addition, obviousness requires a reasonable expectation of success in modifying the prior art. MPEP § 2143.02, page 2100-141. Nothing in the cited references indicates that the electric field at the peripheral edge of the polysilicon electrode can be raised during operation by a reoxidation oxide layer of the recited thickness.

Claim 47 recites that the nitride layer is from about 10 Å to about 50 Å thick. Nothing in the cited references suggests that such a layer is sufficient to prevent formation of asperities on the underside of the polysilicon electrode.

Therefore, the rejection of claims 46-49 and 51-57 under 35 U.S.C. § 103 has been overcome.

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PATENT

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at [dvenglarik@munckbutrus.com](mailto:dvenglarik@munckbutrus.com).

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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